

REMARKS/ARGUMENTS

Claims 1-14 and 19 are active. Claims 15-18 have been withdrawn from consideration. The specification has been amended to replace "Fig. 1" with "Fig." as required by the Examiner. Claim 19 finds support at the top of page 3. No new matter has been introduced. Favorable consideration of this amendment and allowance of the application are now respectfully requested.

Restriction/Election

The Applicants previously elected with traverse **Group I**, claims 1-14, directed to a process for manufacturing a lead-rich flat glass. The requirement has been made FINAL. The Applicants understand that additional species will be rejoined and examined upon an indication of allowability for a generic claim reading on the elected species. The Applicants respectfully request that the claims of the nonelected group(s) or other withdrawn subject matter which depend from or otherwise include all the limitations of an allowed elected claim, be rejoined upon an indication of allowability for the elected claim, see MPEP 821.04.

Objection--Specification

The specification was objected to for various informalities. This objection is moot in view of the amendments above. Density is sometimes conventionally expressed in dimensionless units, see excerpt from Wikipedia (<http://en.wikipedia.org/wiki/Density>) below:

Different materials usually have different densities, so density is an important concept regarding buoyancy, metal purity and packaging.

**In some cases density is expressed as the dimensionless quantities specific gravity (SG) or relative density (RD), in**

**which case it is expressed in multiples of the density of some other standard material, usually water or air/gas.**

The dimensionless density values in the specification refer to the density of glass or metal with respect to water. The Examiner is correct that the SI unit of kg/m<sup>3</sup> may be used. Accordingly, this objection may now be withdrawn in view of the conventional use of dimensionless density values which would have been understood by those of skill in the art.

**Objection--Drawing**

The drawing was objected to as referring to Fig. 1 where there is only a single figure. This objection is moot in view of the amendments above and the attached Replacement Drawing.

**Rejection—35 U.S.C. §112, second paragraph**

Claims 9, 10 and 12-14 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

Density: As explained above the density of glass is conventionally expressed in dimensionless units and those of skill in the art at the time of invention would have understood the meaning of these values when read in light of the specification.

Antecedent basis. The rejection of claims 12-14 is moot in view of the amendment to claim 12 above.

Therefore, these grounds of rejection may now be withdrawn.

**Rejection—35 U.S.C. §103(a)**

Claims 1, 3, 6-8, and 11-14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Jeanvoine, FRANCE 0302373 (corr. to U.S. 2004/0224833), in view of

Basler, U.S. Patent No. 3,332,763. Neither Jeanvoine nor Basler suggests selecting a neutral atmosphere required by the present claims. Therefore, these references in combination cannot render the invention obvious.

Page 7, near the bottom, of the OA concedes that Jeanvoine does not disclose a float plant with a neutral atmosphere.

The Examiner relies of Basler for teaching “a float plant with a neutral gaseous atmosphere” which is comprised principally of nitrogen (OA, page 8, lines 1-2). However, Basler does not suggest selecting a neutral atmosphere and the atmosphere exemplified in that reference are reducing. For example, Basler’s nitrogen-containing atmosphere contains **4% carbon monoxide** and **4% hydrogen** and both of these compounds are highly reducing. Basler, in fact, refers to a reducing atmosphere at col. 2, line 7. Basler never suggests selecting a neutral atmosphere that is neither oxidizing nor reducing under float plant conditions.

As disclosed on page 1, lines 36 *ff.* of the specification reduction of lead oxide produces metallic lead which can evaporate and then condense falling on the lead-rich glass and contaminating or marking it. As observed by the inventors, the use of a reducing atmosphere produces a grayish film, which is a thin layer of metallic lead that forms on the surface of glass in contact with the float plant atmosphere, specification, paragraph bridging pages 2-3. The inventors solved this problem by removing the hydrogen (reducing agent) from the float plant atmosphere. Basler does not suggest or provide a reasonable expectation of success for this effect which provides a superior process for making lead-rich glass and a superior lead-rich glass product. Therefore, this rejection cannot be sustained.

Rejection—35 U.S.C. §103(a)

Claim 2 was rejected under 35 U.S.C. §103(a) as being unpatentable over Jeanvoine, FRANCE 0302373 (corr. to U.S. 2004/0224833), in view of Basler, U.S. Patent No. 3,332,763 as applied to claims 1, 3, 6-8, and 11-14; and further in view of Cramer, U.S. Patent No. 3,881,905. Jeanvoine and Basler have been discussed above and do not suggest or provide a reasonable expectation of success for the process of the invention which uses a neutral float plant atmosphere. Cramer was relied upon for teaching an atmosphere containing 0.01% oxygen which is less than the 5 ppmv specified by claim 2. However, Cramer does not disclose or suggest the elements missing from the primary references. Moreover, it is non-analogous art because it pertains to making colored flat glass (not lead-rich glass) in a slightly oxidizing atmosphere (see abstract) and would not have led one of ordinary skill in the art to a solution of the problems associated with production of lead-rich glass such as the formation of lead films or droplets in a reducing atmosphere or how to prevent the oxidation of a molten metal (like tin) used in the float process. Col. 4, lines 48 *ff.* of Cramer, in fact, indicates that oxidation of tin can cause contamination of glass. For each and all of these reasons this rejection cannot be sustained.

Rejection—35 U.S.C. §103(a)

Claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over Jeanvoine, FRANCE 0302373 (corr. to U.S. 2004/0224833), in view of Basler, U.S. Patent No. 3,332,763 as applied to claims 1, 3, 6-8, and 11-14; and further in view of Hiromatsu, U.S. 2005/0028559 and Gardner, U.S. Patent No. 5,120,579. Jeanvoine and Basler were discussed above and did not suggest or provide a reasonable expectation of success for the process of the invention which uses a neutral float plant atmosphere. Hiromatsu and Gardner were

relied upon for teaching the temperature limitations in claim 4. However, Hiromatsu and Gardner do not disclose or suggest the elements missing from the primary references. Therefore, this rejection cannot be sustained.

Rejection—35 U.S.C. §103(a)

Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over Jeanvoine, FRANCE 0302373 (corr. to U.S. 2004/0224833), in view of Basler, U.S. Patent No. 3,332,763 as applied to claims 1, 3, 6-8, and 11-14; and further in view of Siebers, U.S. Patent No. 6,846,760. Jeanvoine and Basler do not disclose or suggest all the elements of the invention nor provide a reasonable expectation of success for the process of the invention which requires a neutral float plant atmosphere. Siebers cited for teaching the float glass temperature limitation of claim 5. However, Siebers did not disclose or suggest the elements missing from the primary references. Therefore, this rejection cannot be sustained.

Rejection—35 U.S.C. §103(a)

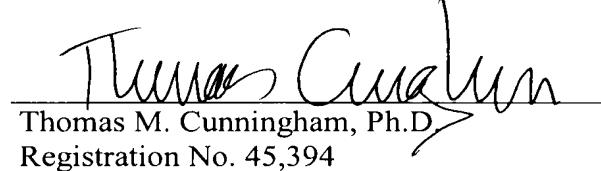
Claims 9 and 10 were rejected under 35 U.S.C. §103(a) as being unpatentable over Jeanvoine, FRANCE 0302373 (corr. to U.S. 2004/0224833), in view of Basler, U.S. Patent No. 3,332,763 as applied to claims 1, 3, 6-8, and 11-14; and further in view of Speit, U.S. Patent No. 5,073,524. Jeanvoine and Basler have been discussed above and do not suggest or provide a reasonable expectation of success for the process of the invention which uses a neutral float plant atmosphere. Speit was cited to establish the density of float glass required by claims 9 and 10. However, Speit does not disclose or suggest the elements missing from the primary references. Therefore, this rejection cannot be sustained.

Conclusion

This application presents allowable subject matter and the Examiner is respectfully requested to pass it to issue. The Examiner is kindly invited to contact the undersigned should a further discussion of the issues or claims be helpful.

Respectfully submitted,

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